

Sanborn (G. D.)

LETTERS

UPON THE

EFFECTS OF ALCOHOL

AS A PREVENTIVE TO

TUBERCULAR FORMATIONS & DEPOSITS.

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PREFACE.

The following series of Letters was written not only for the perusal of physicians and those interested in the advancement of medical science, but also for invalids laboring under Consumption in any of its stages, who have a claim to be apprised of whatever new light the profession or any of its members have obtained in regard to a subject in which they are so deeply interested. The Letters appeared originally in the *New York Daily Times*. Many persons, physicians and others, who had not the opportunity of seeing them as they came out, have requested their republication; and to gratify their wishes, as well as enable those who may desire to preserve the Letters in a body, I have determined to issue the series in pamphlet form. So far as I am informed, nothing of the kind has ever before been published.

A great deal of misapprehension, in my humble opinion, exists in the community and among the profession, respecting the effects of a reasonable employment of Alcoholic Drinks, their uses in health and disease, and the consequences that follow in some constitutions from their total disuse. It is to correct such misapprehensions that I would place the subject in its scientific aspect fairly before the reading and thinking public.

I flatter myself that I have proved in these Letters that *Alcoholic Liquors* are a perfect substitute for *Cod Liver Oil*, effecting in reality what the latter was expected to accomplish; but what, we must add, it is too palpably true, it has failed to realise. And also, that in Consumption, no other internal remedy should be used, except Alcoholic Drinks in some of their forms. These questions must be settled first of all by physicians; and through their decision, in a good degree, that of the public will finally be determined. I have no doubt that the former understand their responsibility in this matter; and that, whatever differences of opinion may now exist, the vexed question will at length be settled by unanimous consent.

With the hope that this attempt to set forth the uses of Alcoholic Drinks in a single class of diseases, and more particularly in a single disease, will meet with at least candid reception, it is respectfully dedicated to the cause of Medical Science, and of Humanity, by

THE AUTHOR.

No. 6 Bond Street, New York, January, 1856.

LETTERS ON CONSUMPTION.

ALCOHOLIC DRINKS, IN AND OF THEMSELVES, DO NOT PRODUCE CONSUMPTION; BUT, ON THE CONTRARY, PREVENT THE FORMATION AND DEPOSIT OF TUBERCLES ON THE LUNGS.

LETTER I.

To a majority of persons, I am aware, the above announcement will appear bold and startling. To assert that an agent, who too frequently bears upon its wings only wretchedness and death, should have assigned to it the holy mission of mitigating the sufferings and lessening the mortality caused by the *great destroyer* of the human race—Consumption—may and doubtless will be viewed as presumptuous, and by those in particular, who choose to consider it as destitute of truthfulness or evidence of its support.

Medical men of eminence, whose views upon this subject are in harmony with my own, and who have willingly lent me their testimony in favor of the correctness of the theory I advance, have yet allowed their convictions to be overcome by their fears, and have declared it an *unwise and inexpedient* undertaking to advocate the use of alcoholic beverages, even as *remedial agents*. Temperance men assert that to speak of alcohol in any light save as a *demon of evil*, would be to give encouragement to the enemies of a worthy cause, and to work against a large class of persons engaged in the needful endeavor to check the spread of the use of beverages which no one doubts may prove a pernicious evil, and one, the ravages of which every intelligent person in the land must desire to see stayed.

With the *abuses* of alcoholic beverages, I have nothing to do. I speak only of their proper and legitimate use, as *remedial agents*, in the treatment and cure of a disease which has hitherto baffled all human power, and the very name of which is associated with death and the grave. It is an admitted fact that *two-thirds* of all the diseases which afflict mankind are the result of errors in *diet*; but shall we therefore discard the use of food?—The same arguments which are brought against alcohol will apply with just as much force against all our articles of food and all our beverages, under the same circumstances, namely, of *excess*.

I would ask wherein consists the greater evil of prescribing the daily use of alcoholic stimulants, in cases where the teachings of Physiology and Chemistry show them to be necessary, than in prescribing the daily use of *drugs*, many of which are deadly poisons, and produce the most destructive effects upon human health and life? And in view of the misery and death caused by the injudicious employment of drugs, would it not, I ask, be equally a work of philanthropy to pass a *Prohibitory Drug Law*, as to pass laws to restrain the excessive use of intoxicating drinks?

I have no fears that by a perusal of my views upon this subject, intemperance or indulgence in alcoholic drinks will be increased—that drunkards will be multiplied—that widows' tears will be made to flow more freely, or that orphans sighs will be made more deeper and heart rending. It is not at all probable that every second person will consider himself a subject of Consumption, and hence seek an indulgence in the use of alcoholic drinks as the only preventive.

Let the Medical profession take up Alcohol strictly as a *remedy*, assign to it its proper position, seek to understand its *chemical and physiological* properties, and its effect upon the system in health and disease—let them decide when it can be used with benefit, and in what cases it will only produce injury; let them maintain their opinions boldly and honestly, regarding not *public opinion*, but *private good*, and I know of no course that could be taken which would tend more to check its indiscriminate and intemperate use, than such a stand on the part of those who are *rightfully* regarded as the *guardians* of the public health. Every physician knows Alcohol to be a most powerful agent for good or for evil; but I venture the assertion that there is not *one* in a *hundred* who can give the correct reasons, based on *scientific and chemical* principles, *why* it is beneficial in some cases, and injurious in others. I mean no disrespect to the Profession, nor do I question their intelligence or thoroughness of their medical education; but I do claim that many of the recent discoveries respecting the nature and uses of alcohol are not generally known, and that too little attention and investigation has been given to the subject on which I am writing, through fear of public opinion.

A writer in the last number of Putnam's Magazine in an article on the "Use and Abuse of Stimulants," quotes from a medical writer in the *Bibliotheca Sacra* of 1855, this remarkable language:—"In the present state of public sentiment, there is little danger of the *abuse* of stimulants by educated men who desire to set an example of temperance; we are not sure that, as far as the health of the individual is concerned, *this error is not on the other side.*"

I trust that the brief series of articles I shall present to the public on this subject will be read with the attention which their importance evidently demands, and judged in the spirit of candor which characterizes men who are not afraid of the *truth*.

Before entering directly upon the subject of the effects and value of alcoholic beverages in the treatment of Consumption, I shall show the true nature and character of the disease and the matter of *tubercles*, in the light of the recent discoveries in *chemical and pathological* science. I shall *carry the crucible into the living human body*, analyze the *blood and the flesh*, and show what parts are deficient, and what excessive. This will form the subject of my next letter. In the third place, I shall show *why* the mode of treatment so long practiced in cases of Consumption can have no curative effect in the disease; fourthly I shall show that alcohol contains the elements which the system of the consumptive requires; that it *does* act to prevent the development of the disease, and to assist in its cure; and that it is, in fact the *only* medicine that can be used in these cases with beneficial and *curative* effects; and lastly, shall give the opinion of medical men in corroboration of the value of Alcohol in the disease under consideration.

LETTER II.

THE NATURE AND CHARACTER OF CONSUMPTION, AND
OF THE SUBSTANCE OF TUBERCLE.

The researches and discoveries which have been made in Animal and Human Chemistry within the past few years, have thrown more light upon, and imparted more practical knowledge concerning the *nature and pathology* of the disease called Consumption, than have all the investigations made during the three thousand years previous. Nor is it strange that the attention of the earliest physicians should not have been directed to the history of this disease, which was then one of the *rarest* of human maladies, and only known as an occasional and mysterious cause of death. Then it destroyed only hundreds, where now it sweeps off its hundreds of thousands.

The question is at once asked, "What is the cause of the increased and *increasing* mortality from this disease, whose very name has become a dread in all civilized countries?" It is a fact which no intelligent person will deny, that in *proportion* as nations have advanced in a knowledge of the arts and sciences, the spread and fatality of Consumption has increased in the same ratio.

The opinion of the early physicians as to what Consumption is, where it has its origin, its causes, and how these produce their well-known effects, were strange, crude and imperfect, as modern science has shown. Yet it seems still more strange that so little advancement has been made by the profession at large, in obtaining a knowledge of this disease at the present day, while thousands are seen falling by it on the right hand and on the left. I venture the assertion that nine-tinths of the physicians of this city and of this country have never given their strict attention to this subject, and know as much of what Consumption is as did HIPPOCRATES, PARACELSUS, BOERHAAVE and SYDENHAM, and, in truth, *very little more*. To use an expression common among the people, it has been a matter of "guess work" with almost all. The older physicians "guessed" that Consumption was produced by some "morbid flux" in the blood; but as to what that morbid flux or material was, they had no knowledge. The same idea that Consumption depends on the presence of some kind of *morbid material* in the blood, is entertained at the present day by many wise old ladies, in common with physicians; and it is not very far from the truth, if we will only get, first of all, a clear understanding of what the *nature and origin* of this morbid material is.

The true method of studying the human system, is to study it as a *chemical compound*. Man is a mass of chemical materials—as much so as the rocks under his feet, or the trees in the forest.—Many of the changes always going on within this citadel of life are *chemical*. Investigators have at last ceased to speculate about diseases, and taking the crucible and retort in hand, have entered into the living body—analyzing blood, flesh and bone—the worn-out substances cast-off from the system, and the food that builds it up anew. The path which LIEBIG was the first to mark out, has been faithfully trodden by his collaborators, until at last we have learned the *number and proportion* of elements that go to make up every tissue of the body—every article of food, and every product of disease.

Not only have we learned the elements of the human body, but also that *two kinds of forces* are at all times at work within it, both necessary to life, and neither of which should

be allowed to overbalance the other. These are: first, the *vital forces*, which go to build up and sustain the body; and secondly, *chemical forces*, which decompose, destroy and carry off its substance. Strange, but true it is, that the destroying forces are just as necessary to life and health as the *repairing*; without decay, to go hand in hand with *supply*, life could not be sustained. As the burning away of coal or wood generates heat to warm and comfort us, so the burning away of suitable material within the human body supplies *vital forces*, (so long as the *blood and organs* are in a natural condition, and nutrition furnishes a due supply of firm and normal fibre,) the vital heat, power and energy which constitute life perfect, or health.—Without *chemical change, or waste*, life dies out like an extinguished lamp; without vital or recuperative power to replace what the former is every moment stealing away, life dies out, on the other hand like a lamp whose oil has been consumed.

Life, then, is a *process of combustion*. The agent which *consumes* is oxygen, a gas which forms one-fourth of the atmosphere, and which enters the system through its great furnace—the lungs. So long as the vital flame is continually supplied with fresh fuel, life continues; but when the fuel fails, or the system loses its power to turn it to use, then life must cease. Then oxygen performs its work of *destruction*, unchecked by the repairing forces, and the result is the final *decomposition* of the body which, it is thus seen, is also a slow combustion. Let me not be misunderstood on this point. Oxygen is necessary to all life. *But its action is FRIENDLY to the system only so long as the VITAL POWERS of the latter are capable of promptly and completely making good again the waste which its action occasions, by the digestion and deposit of new nutritive material. When the vital powers fail to do this, wasting and disease must ensue.*

How strange the part which oxygen plays in sustaining animate existence! It is the great *vivifying principle* of all life; yet at the same moment the grand destroyer, and finally the agent of dissolution.

It seizes upon the solid rocks, and they crumble to powder; it devours iron and most metals with rust; and under its slow and silent action the majestic oak and the god-like form of man become in a few years reduced to an impalpable dust! A sensible citizen of Milwaukee lately made preparations to burn the body of his deceased wife, but his design was prevented by the interference of the community. He stated, and very truly, that whether her body were consumed in the flames or silently mouldered in the grave, in either case its decomposition would be effected by the same agent, and would be essentially the same process. And surely, need not true intelligence and good taste revolt at this more rapid and less offensive mode of decay.

In another point of view, life is a *conflict*; although I do not mean to be understood in the *Scriptural or the poetical* sense. It is a conflict between *conservative and destructive* forces. Health, which is *life perfect*, consists in the equilibrium of these two sets of forces. As has been truly said by the distinguished LIEBIG, "Disease occurs when the sum of vital force is *weaker* than the acting cause of disturbance"—that is, of *destructive change*. Again, "Death is that condition in which *all resistance*, on the part of the *vital force*, entirely ceases." But, to make the idea still more clear, he says, "*A deficiency of resistance, in a living part to the cause of waste is, obviously a deficiency of resistance to the action of the oxygen of the atmosphere.*"

Here, then, we have a plain statement of the *nature of disease*—namely, a weakness of the *vital forces*, which can only occur when the blood and the organs have lost their nutritive powers and natural condition, and an equally plain statement of the particular nature of this weakness, which is, in a *want of power to resist the action of oxygen*. The reader is requested to keep this point distinctly in view, as on it depends the true theory of the nature and origin of Tubercular Consumption.

In my next communication I shall continue the investigation into the nature of Consumption, and the condition of the human system which leads to the deposit of tubercles, showing especially the changes which take place in the blood of the consumptive.

LETTER III.

THE BLOOD OF THE CONSUMPTIVE.

In my last communication I stated the important discovery of modern science, that the human body is a *compound of chemical elements*, upon which both vital and chemical forces are continually acting—the latter to waste and destroy, the former to re-supply the materials of the living blood and tissues; and also, that while life is thus, in one sense, a process of continual decay, in another sense a conflict of adverse forces, an equilibrium of which constitutes the state we term *health*.

Vital power is kept up by daily fresh supplies of food. But food is of two kinds, answers two different purposes. A small proportion of all that we consume goes to form the *solid tissues* of the body, and is called *nutritious* or flesh-forming food; a much larger proportion goes merely to form fat, or else immediately unites with Oxygen to produce, under the favorable additions already alluded to, heat, and vital force; and this is called *respiratory* or heat-giving food. The lean flesh of animals, cheese, oysters, eggs, wheat-bread, oat-meal and onions, contain large supplies of nutritious food; all oils and fatty substances, including butter, and also sugar, starch and alcohol are purely *respiratory* or *carbonaceous* food, so that of course rice, corn-meal, fat meats, milk, potatoes and most vegetables, contain much more *respiratory* than *nutritious* material. In a rough way, we may say that the former class are food for the muscles, the latter are food for the lungs. The former *build*, and the latter *warm*, "the house we live in."

Physicians who have lost confidence in "Cod Liver Oil" as a medicine (a substance which, we may safely say, never possessed any curative properties) often continue to give it, saying that if it does good in no other way, it will at least afford *nutrition*. Such physicians show their ignorance; for they ought to know that, from its chemical nature, there cannot be in "Cod Liver Oil" a *particle* of nutritious matter. It is purely *respiratory* food.

But when the food is poor or insufficient, or the vital powers are lowered by excessive labor, anxiety, neglect, or profligacy, the blood becomes reduced, and signs of disease appear. When the disease takes the form of Consumption, the following changes in the blood will be found to have taken place: *The Red Globules are greatly diminished, the proportion of water is much increased, and the Albumen and Fibrin are also increased, but imperfectly elaborated, and very defective in quality.*—Very much the same changes are found in the blood of Chlorotic young women—a class that are

more liable than almost any other to run into Tubercular Consumption. All these facts point as an unerring index to the true nature of the original difficulty in this disease, which consists in a *lowering or failure of the vital powers*. But of all the causes of this failure, experience and observation at once prove that the most frequent and active is the want of a *due supply of oxygen*, depending on small and imperfect lungs, on sedentary habits, with cramping postures of the body, or on a confined and impure air. A person in perfect health, kept for a time on *one fourth* of the quantity of food necessary to sustain life, or *one fourth* of the necessary amount of oxygen in the air breathed, would soon show signs of disease.—But too much food, or too much oxygen, also induces disease. Thus we see how the *first failure* of vital power can come from *too small a supply of a destructive agent*, as well as from its excess!—Here, then, we have the great causes of Consumption—the *fons et origo malorum*—the fountain of a widely-spreading stream of death! Mr. ANCELL has said, "From the earliest invasion of tubercular Consumption, the sum of the vital force is below the standard of health; and as the disease advances, the vital force of the whole system continues to diminish."

It is a fact, with which every one is familiar, that different persons are born with constitutions possessing different degrees of *vital resistance*.—One man inherits from his parents a fund of vitality which enables him to turn aside all the causes of debility and disease, as the crocodile's coat of mail turns harmlessly off the arrow or ball of the hunter; another comes into the world with a small stock of vitality, and being unable to resist the destructive elements of nature that continually act upon him, he falls an easy prey to them, that is, he becomes the victim of disease. One man's life is entrenched within a physical Gibraltar—while another's is fortified around with walls of sand, the yawning breaches in which constantly invite assaults from the grim enemy of life.

But persons who inherit from their parents a fine and vigorous constitution, too often ruin its powers by early vicious habits, especially by unnatural or "solitary indulgence," or by wrong modes of living, and a neglect of the means conducive to health and long life. It is a sad sight to see the sturdy oak of the forest, shattered by the lightning's bolt, withering and going to premature decay. But it is sadder still to look upon the victim of "self-abuse" or other excesses, and behold the wreck of manhood, broken, decayed, powerless to resist the encroachments of disease, and tottering on the verge of premature dissolution!

From the facts which have now been cited it will be seen, then, that *any cause which tends in the first instance to prevent the entrance of a due supply of Oxygen through the lungs into the blood, or any cause which tends to diminish the vital or resisting forces, may produce the state of system that has now been explained, and so lead to the formation and deposit of tubercles in the lungs, to be followed in due time by all the horrors of Consumption.*—For it will at once appear that without Oxygen there can be no vitality, and Oxygen, therefore, must be had; the thing requiring to be done to prevent the excessive tendency to Oxygen to eat up the living tissues, being to keep the vital forces in a vigorous condition, so that they may resist undue chemical action, and repair the natural waste as fast as it occurs, and if necessary, to give in addition such kinds of food or drinks, as will unite readily with the destroying agent, and thus

protect the body. The lack of the Red Globules of the blood in Consumption, as already explained, is doubtless owing to the action of Oxygen, when operating unchecked, which unites with and destroys them. It is evident that these may be protected by introducing constantly into the blood a supply of *respiratory materials* which shall have a greater affinity for Oxygen than the Red Globules themselves. By what agents the blood and the tissues may be protected against the undue action of Oxygen, I shall consider in a future letter.

LETTER IV.

THE NATURE AND ORIGIN OF TUBERCLES.

In my last letter I spoke of the Blood of the Consumptive, giving the deviations from a healthy state that are found to take place in tubercular disease, and stating the causes of these changes to consist in a *deficiency of vital force*, and the undue action of the Oxygen of the air.

In this state of things the union of Oxygen with the Carbon of the fatty and other tissues of the body is *too rapid*. The elements of blood and flesh do not adhere together with tenacity enough to withstand the chemical affinity, which steps in and breaks up their combination. The living compounds fall into fragments, and perish; and *lifeless compounds* accumulate in the system, or are removed by the proper organs. *Metamorphosis*, or change, is hurried; the patient "looses flesh;" and the food does not make good the place of what is destroyed.

Often the patient is unaware of the struggle going on through the whole citadel of life, and wholly unconscious that victory inclines to the side of the *invader*. He notices that his weight is less, or his limbs becoming smaller; but he does not reason so far as to see that this is because the "corroding tooth" of Oxygen, unbalanced by nutritive deposit, is picking to pieces the very substance of his body, "before the time;" and that decomposition which should take place within the *winding-sheet*, is going on within the *living frame*!

The result of this over-rapid decay and change of the living solids is, that the blood becomes *impoverished* and *lessened* in quantity, and highly arterial in appearance. It is *florid*, *feeble*, and circulates quickly. The lamp of life is burning up with a flame pure and intense, but not large or vigorous. All the powers of body and mind are *vivid* and *quick*, but not enduring and powerful.

In this state of the system, the prime fact which attracts our attention is, that *too little carbon* is retained in the tissues and in the blood. The *albuminous* element of the blood is not sufficiently vitalized to form healthy and enduring fibre; in other words, by loss of its carbon, and lowering of its vitality, it *degenerates*, as medical authors express it, or sinks in quality below the normal standard. It is this material, as we have reason to believe, which forms the substance of Tubercles. Being foreign to the nature of healthy blood, it *excludes into various parts of the system*, but especially into the *air-cells of the lungs*, where it forms into roundish and somewhat hard masses, or *Tubercles*, and lays the foundation of the disease known as Consumption.

Such is believed to be the origin of Tubercles in the lungs, and such as has now been explained the condition of the bodily system that leads to their formation. When we come to examine the substance of tubercle itself, there are difficulties which have not yet been overcome in regard to ascertain-

ing its exact nature. It is hard to analyze the substance of tubercle, entirely free from portions of the lung or the blood.

It seems to be satisfactorily determined that a large portion of tubercles in the lungs, if not all, originate on the *free surface of the mucous membrane, and in the air-cells*. It is also certain that they contain globules of a kind of fatty material, which, of course, is highly carbonaceous; yet SMITH, in his *Chemistry of Man*, states that the entire substance of tubercle contains less carbon than the fibrous or nutritive elements of the blood; and this agrees with the facts already stated as to the too rapid loss of carbon in consumptive subjects. For although there may be doubts in regard to the elements to be found by a chemical analysis in tubercles themselves, there can be no doubt in regard to the facts which I have previously stated—namely: that the vital forces are *feeble* in the consumptive; that the *metamorphosis* or change of tissues and blood is *too rapid*, and that blood *too arterial* and deficient in carbon is the result.

Is it not clear in this connection that, although oxygen is the great enemy of the consumptive, so long as he remains in debilitating and diseasing conditions, yet it is his *best friend* if he will but keep the vital forces in full play and power? In fact, a sufficiency of pure air is necessary to keep up the vital forces; and but sedentary habits, and breathing *too little or impure air*, the first failure of vitality may occur that shall afterward lead to too speedy change, and the formation of tubercular matter. When a single air-cell has been filled with tubercular deposit, it becomes a cause of the loss of just so much oxygen to the blood, and just so much vitality to the system, and thus lays the foundation for the filling of another and another cell; so that the larger the number of tubercles already deposited, the more rapidly they are likely to accumulate.

I repeat, oxygen is the *sure friend* of all who live according to nature, who improve their physical powers by active exertion in the open air, and who live upon hearty and sustaining food. The victims of Consumption are generally taken from among that class of individuals whose general tone of system is lowered, as occurs among the "pampered and over-protected children of fortune," or those living in a *confined and unhealthy atmosphere*, &c. Those who expose themselves to the action of the elements—who travel arduous journeys in new and rugged, or cold countries—who betake themselves to a sea-faring life, or even those who, from confirmed dissipation, spend much of their time amid what others would esteem the most dangerous exposure in the open air—seldom or never die of Consumption.

Let the invalid or the healthy, alike treasure up this principle, for it is a vital one to each and all—it is those occupations and conditions that *weaken and debilitate, and not those that require exposure and risk, which end in that terrible disease, Tubercular Consumption*. Two remarkable and opposite facts may be cited, in proof of this position, both of which are universally known, and both clear and distinct in their bearing on this point. One of these is the almost entire exemption of common street drunkards, as already mentioned, from Consumption; the other is the fact that, of those who die in prisons, most of whom are in good and even robust health when they entered confinement, nearly *four-fifths* are found to die of Consumption, and, in some cases where *post-mortem* examinations have been carefully made, almost all of the remainder though dying of other diseases are found to have tubercles deposited in the lungs.

The following are the conclusions to which we are led by our investigations of the conditions which favor the establishment of tubercular Consumption :

1. That two sets of forces are at all times acting within the living body—the *vital*, which assimilates the food to form healthy blood, build up the tissues, and resist the encroachments of disease, and the *chemical*, which decompose and destroy.

2. That *decomposition and destruction* are just as necessary to life as *nourishment*—in the same way that *fire only gives heat by a waste of fuel*.

3. That health consists in an equilibrium, between the forces of *nutrition* and the forces of *decay*, that is between the *vital force* and the *force of oxygen*.

4. That a due share of oxygen is even necessary to supply *vital force*, which, when supplied, and acting in connection with other healthful conditions, acts to antagonize the excessive action of the former.

5. That the conditions most necessary to health, that is to maintain the *equilibrium* between *waste and supply* are *wholesome and nutritious food*, an *active life* and the *free use of air* that is *pure* and contains its due share of *oxygen*.

6. That the first step towards the formation of the disease known as Tubercular Consumption, is in the failure of the *vital powers*, either from hereditary feebleness of the constitution, or from a want of the conditions necessary to vigorous health, or from excesses and imprudence in habits and living, producing a state of debility.

7. That as a consequence of this feebleness of the *vital powers*, whether hereditary or acquired, the *chemical action of Oxygen goes on unchecked*, and the *waste* in the blood and tissues outruns the *supply*.

8. That the carbon of the blood is *too largely* consumed, and the nutritive elements becoming changed by its loss, form an unnatural and foreign substance, which may be deposited as Tubercles in different parts of the system, but more particularly in the lungs.

9. That, therefore, the formation and deposit of Tubercles, which by its action produces Pulmonary Consumption, is chiefly due to two things—weakness from various causes of the *vital force*, and the preponderance of *waste over supply*, in the actions of the system.

The conclusions here set forth are believed to be worthy of the careful attention of the invalid, as well as of medical men. In my next letter I shall speak of the nature and effects of Alcohol as a means of *preventing and curing* Tubercular Consumption.

LETTER V.

HOW ALCOHOL ACTS TO PREVENT AND CURE CONSUMPTION.

It will be surprising to most persons to learn, and yet it is an undeniable fact, that the great majority of those who die of tubercular consumption have been persons of temperate habits, or at least have never indulged freely in the use of alcoholic stimulants. Says Dr. Atkinson, of the Wakefield Dispensary, England, "A remarkable fact exists, strange as it may appear, that in consumptive families the most dissipated and irregular in their habits, and those who have habitually exposed themselves to many of the causes liable to ingender this disease, have yet frequently enjoyed longevity ; whereas, in the same families the most

virtuous and those who have guarded their lives with the greatest care and prudence, have fallen early victims."

There is hardly a village in our country in which there are not to be found one or more persons who are habitual and intemperate drunkards ; and yet men of this class seldom or never die of consumption, and generally outlive two-thirds of the more sober population around them. Pass along our streets, or visit our hotels, and inquire into the physical condition and health of those who are known to everybody as "high livers" and "hard drinkers," and see how seldom the signs of wasting or debility, or the most remote tendency to tubercular Consumption is manifested by them !

These facts are here mentioned not as *examples for imitation*, but as *facts* which cannot be denied, and from which, therefore, an important practical inference can be drawn. It is well known that those who indulge too freely in the pleasures of the palate are in danger of the visits of Gout and Apoplexy ; while those who drink to *great excess* are overtaken in the end with diseases of the Nervous System and of the Liver. But with these results we have nothing further to do than to name them as a warning which all should bear in mind. It is our present business, admitting the fact that Alcoholic Drinks do exert a powerfully protective influence against the encroachments of Consumptive disease, to inquire *why* this is so, and in *what way* alcoholic beverages act to prevent the development of tubercular deposits in the lungs, with the train of dreadful consequences which follow in this course.

I have shown in previous letters, and I believe beyond the power of successful contradiction, that tubercles have their origin in a condition of weakness of the vital forces, in which the oxygen of the air, not being duly resisted, consumes too rapidly the fatty tissues of the system, leaving in the latter an *unnatural residue of nutritive material in a partially oxidized condition*, which is then at any time liable to be deposited in the lungs, forming tubercles. Let it also be remembered, in this connection, that the blood of the consumptive is, in all cases, too highly *arterial*, and that, in fact, a deposit of tubercles can only take place from *arterial blood*. This arterial blood is the necessary consequence and sure indication of the excessive action of oxygen, with loss of carbon, to which I have already referred. Now, I shall be able, as I think, to show, in the course of this series of letters, that a proper use of alcoholic drinks checks the *excessive oxidation and waste of the carbon or fat* of the body ; and every one will at once acknowledge that it does give to the blood of the drinker a *venous hue and condition*.

From what has been previously shown in regard to the nature and causes of tubercles, it follows that the indications to be kept in view to prevent their formation and deposit, where a predisposition to consumption exists from any cause, are the following :

I. To raise the standard of health and of the vital forces, and in all ways to preserve the blood and tissues from the destructive action of the oxygen of the atmosphere.

II. A removal of, or from, the known causes of the disease.

The latter indication is one that requires simply a correct understanding of the causes of this disease, with a fixed determination on the part of the patient to do whatever he learns that duty to his own health requires. It is therefore the business of the patient, and calls only for advice which the

physician can give at any time, or which may be drawn from any sensibly-written book on the subject.

To accomplish the first-named indication, however, many distinct points require to be kept in view; and the common sense of the community throws the responsibility of marking out the course necessary to secure health, upon the shoulders of the qualified professional adviser. The first thing to be attended to, is to make a proper and persevering use of Nature's great remedies, *air, exercise and nourishing food*. To understand the legitimate effects of the use of these natural conditions, and, on the other hand, of their *lack*, contrast the stalwart and muscular form of the Indian in his native forests, straight as an arrow, agile as a deer, and powerful as a giant, with the feeble, spindling offshoot of a fashionable life in our day. Contrast the rosy-cheeked, European woman, who thinks nothing of a ten miles' walk or a day's active employment in the open air, with the bloodless dyspeptic victim of fashion in our own cities. Or look at the difference between the strength and vital energy experienced after a month's tour of hunting and fishing, and after a month's confinement in the heavy air of the counting room.

But I need not multiply illustrations, which are fresh in every person's observation and experience. The *second* thing necessary to be done, is to avoid all causes that tend to weaken and prostrate the vital forces, such as excessive labor, anxiety, sexual excesses, and the use of tobacco and *all forms of drugs*.

In the *third* place, in order to raise the standard of the vital powers, and preserve the system against the inroads of Oxygen, the daily use of Alcoholic stimulants is indispensably necessary. I do not claim that this alone will keep the system in a state of health; but I do claim that where the vitality of the system is low and the tissues suffer too rapid decomposition, a dependence on air, exercise and diet, will not alone arrest the downward course of the system, and that no other agent will accomplish this result so speedily or so certainly as some suitable form of Alcoholic beverage. The reasons which establish this conclusion are easily stated, and easily understood.

Alcohol contains Carbon in a highly concentrated form, and yet is highly volatile. Hence, for a speedy and certain union with Oxygen in the blood, no other substance is so available as this.—It enters the circulation almost instantly after being taken into the stomach, and diffuses itself rapidly through every part of the system, carrying with it wherever it comes an agreeable warmth and exhilaration. It will be seen at once that no other form of respiratory food is so valuable as this; while at the same time we may say that by combining with Oxygen and neutralizing the excess of that corroding agent, which is then removed in the form of *Carbonic acid gas*, it acts as an antidote to a poison.

We have seen that, in Consumption, *waste exceeds supply*, and that the fund of both material and force in the system is running low. The most marked sign in this condition is seen in the highly *florid, arterial blood*. Let it be laid down as an axiom in the chemistry of human life, that a bright arterial blood indicates too rapid decomposition and waste, that is, too rapid union of Oxygen with the elements of blood and tissue. Who does not know the fact that the consumptive person never becomes *fat*—never even gains flesh to any great amount, unless through the checking or removal of the disease? Oxygen burns up his fatty tis-

suess; it burns too rapidly into his blood and muscles, for the strength of the repairing forces to make good its ravages. The muscles shrink from loss of fibre, and the very blood vessels diminish in size, to adapt themselves to the decrease, going on in their contents! The necessity for some material, rich in Carbon, speedily absorbed, and actively disposed to combine with Oxygen, to correct this state of things, must be evident to any mind endowed with but the smallest allowance of reflection; and such a material, above all others, is *Alcohol*.

The explanation of the action of alcoholic stimulants, and the proofs of their value in cases of consumptive predisposition and disease, will be continued in my next communication.

LETTER VI.

HOW ALCOHOL ACTS TO PREVENT AND CURE CONSUMPTION.

(Continued.)

The well known exemption of habitual drinkers from Consumption,—the fact that in those predisposed to this disease the blood is always in an arterial condition,—and the indications to be kept in view by the physician and patient in aiming at its prevention and cure, were the subjects of my last communication. The consideration of the last of these three, will occupy our attention in the present.

Oxygen is all around us. It enters our lungs once in every few seconds, during the period of our natural life. It must be had; for without it health and life can not be maintained.—And this Oxygen, once within the human system, *must unite with something*; for it is by its very nature a corroding agent,—a principle of destruction. One of two things, then, must follow. Either the vital forces must be sufficiently vigorous to assimilate the food into blood and solid tissue as fast as the destructive change takes place, or even faster, or else, under the excess of combustion the system must sink, and disease and dissolution must form the speedy *finale*. Such is the state of things in Consumption. And when we see how clearly this disease is a "*consumption*," that is a *consuming or wasting away* of the body, we might well be astonished at the acumen of the ancients, that led them to apply to it so appropriate a name two thousand years before the discoveries of modern science revealed the true chemical nature of its operation, did we not know that the outward wasting, apparent to the eye, gives token of the chemical decomposition going on within.

But suppose the vital forces are low, and the waste not compensated for by the supply,—that, in other words, the patient has Consumption. Must the destructive process be allowed to go on, without check or hindrance? I say No! Alcohol contains abundance of carbon; alcohol enters the blood instantly; alcohol combines readily with Oxygen, and satisfies its devouring affinity. Alcohol, then, is the remedy,—or rather, it is the *food*, required

to check this excessive bodily decay. By satisfying the demands of Oxygen, it acts the part of a mediator between the chemical agent and the endangered tissues; and burns up itself to save the living substance. Says a writer in the Westminster Review for July, 1855: "We want the heat and force. To evolve heat we must have tissue; to have tissue we must have food. If any one can show us how to save our tissue and get the heat, we shall only be too willing to adopt his plan. Alcohol, by its greater affinity for Oxygen, protects the tissue, and sacrifices itself to the voracious element."

Dr. Moleschott, a distinguished German physiologist, has said that to the common laborer "Alcohol is a bank for savings," meaning that, as I have already explained, it protects the tissues of the body, and *saves expense* to the laborer by lessening the amount of food requisite to sustain his life and exertions. With the same truth we may say that to the Consumptive invalid *Alcohol is the true Life Insurance*: since it offers the only reliable means of postponing the payment of the "debt of nature," which the destructive forces are urgently demanding.

This subject admits of an easy and clear explanation. Whatever *burns* in a common fire, *would burn* in the blood if of such a nature that it could be introduced there. Whatever, on the other hand, *burns* in the human system, *does burn* in a common fire. The fatty tissues of the human body burn energetically in the fire; the solid material of nerves, of muscle, and of blood also burn quite readily, though less so than fat. But no substance which can with safety be introduced into the human system, burns more vividly or perfectly than alcohol. A gill of brandy, rum, gin, or whiskey, thrown upon the fire, although it contains much water, blazes up instantly and is consumed. The water of the liquor rises in the form of steam; and the alcohol is converted into carbonic acid and water, or steam; and thus the whole liquid soon escapes in a gaseous form. *Precisely the same things occur when alcoholic drinks are taken into the human system*, and the products which pass off are the same; but as the process of combustion takes place much more slowly in the human system than in a common fire, the same amount of alcohol burns longer in the former than in the latter.

Let us suppose now, that a coal fire is being rapidly consumed in a grate. It will be evident to any comprehension that if we pour oil over the ignited coal, the former by burning more readily will shield the latter from the action of oxygen. *Alcohol* thrown over the coals will still more perfectly protect them; and we may thus burn off successive portions of Alcohol, and *save our coals*, for almost any length of time. In exactly the same way Alcohol shields and protect the tissues, and blood of the human body. By so doing, it *prolongs life* allowing tubercles to be removed by the use

of suitable applications to the lungs, and permitting the vital powers to rally, so that, under favorable circumstances, the patient may recover his health.

Such is the explanation of the use of Alcohol in arresting the progress of tubercular consumption. But there are a few other facts respecting its value as a protective against this disease, to which I will allude in this connection.

Alcohol enters the blood unchanged. Of no other alimentary substance can this be said.—All other substances used as food tax the powers of digestion, in some way to prepare them for admission into the system. It is true that it is not *digested*, in the proper sense of the word, yet it does require to be *minutely divided* before it is fit for absorption, and to accomplish this effect, generally requires several hours so that hardly any other substance is so likely to tax the power of the stomach, or to produce uneasiness, weakness, and disease of that organ, as fat. To this disposition of fat to weaken the powers of digestion, and of course, of the whole system, Cod Liver Oil is no exception. It is plain, then, that the Medical Profession have never displayed a greater want of philosophy or common sense, than in recommending a substance so difficult of management for the digestive organs, as Cod Liver Oil to those who are already weakened by the effect of Consumptive disease.

Between Fat and Alcohol there are many points of similarity. Both are largely composed of Carbon—both excellent forms of respiratory food. A glass of brandy and a slice of fat pork are chemically and physiologically one and the same. Yet there is a wide difference between the two in point of value to persons of feeble digestive powers. Alcohol being immediately absorbed, and that *as Alcohol* and without change whatever, *no expenditure of vital or digestive force takes place to prepare it for the blood.* Hence it is beyond all comparison superior to any form of fat or oil, all of which, as I have already shown, require a tedious process of preparation, and are very likely to disagree, and to aggravate disease.—Alcohol, on the other hand, is just the food for the consumptive invalid, who has clearly an vital force to spare.

Again, *Alcohol keeps the blood in a venous condition.* We have seen that the highly arterial blood of the consumptive is simply an evidence of the too rapid change and waste which his blood and tissues are undergoing.—Alcohol fills the blood with carbon and carbonaceous compounds. These give ample employment to the chemical affinity of Oxygen, which would otherwise be expending its energy on the living blood and solids. The dark or venous hue, then, which these carbonaceous compounds give to the blood, affords a distinct evidence that the war of Oxygen on the system has been stayed; that the chemical agent is kept busy with materials *in*, though not of

the blood; and thus that on natural principles a shield has been interposed between the feeble powers that maintain the life of the invalid, and the sterner power that incessantly labors to produce decay and dissolution.

Alcohol is, therefore, a *pabulum* or food for the consumptive condition. As a perfect form of respiratory food, it preserves, in the manner already explained, the tissues of the body, and lengthens out the period of their activity and power. Hence, less repairing or nutritious food is required, a tax is taken off the digestive powers, *vital force is saved in every way*, and the constitution has the opportunity of husbanding its vigor, and energy, instead of continually expending them on the labor of digestion and assimilation. And yet, from the very fact that the vital powers are augmented, the invalid finds that he *can* digest heartier and more nutritious food, and with more ease than before.

LETTER VII.

HOW ALCOHOL ACTS TO PREVENT AND CURE CONSUMPTION.

(Continued.)

That alcohol *does* combine with Oxygen in the blood, and thereby suffers decomposition, is proved by the fact, established by the experiments of Liebig, that, with the exception of the trifling amount exhaled in the breath, no alcohol can be found in any of the excretions; these presenting, in fact, distinctly, the products of its decomposition. Observation establishes the same fact, since the blood in the small vessels of the skin is seen to communicate to the surface a decidedly *venous hue* after free drinking; and in actual intoxication the skin assumes a *livid or purple color* which alcohol itself has no power to impart, being entirely colorless, and which must be due to the carbonaceous compounds produced from it by the chemical action of Oxygen.

Let us now consider for a moment that condition in which tubercles already exist in the lungs. The indications in this case are two:

I. To remove Tubercles already deposited.

II. To prevent their further formation and deposit.

That the vapor of Alcohol, introduced into the lungs by Inhalation, will have the effect to remove Tubercles already deposited, there can be no doubt, when we consider the position occupied by tubercles, as already explained, upon the free surface of the mucous membrane in the air-cells, and also the fact which may be shown at any time by experiment, namely, that when tubercles are placed in alcohol, they are placed in alcohol, they are gradually *dissolved* in that liquid. By its agency in desolving tubercular matters, it fits them to be removed almost imperceptibly in the expectoration. And thus by a persevering application of the remedy to the very seat and substance of the disease, the progress of the latter is checked, and

the way paved for a cure of the most terrific malady that afflicts human kind.

At the same time that tubercular matter is being removed from the lungs, the opening up of the air cells and the enlargement of the capacity of the organs which follows, necessarily becomes the means of a more perfect purification of the blood, by the freer admission of Oxygen; and any excess in the action of the latter may then be neutralized by the internal use of alcoholic stimulants. In this way a general purifying and invigorating effect is produced upon the whole system, which, taken in connection with the preservative power of alcohol internally employed, and with the use of pure air, exercise, and a nutritious diet, corrects the tuberculous condition of the fluids, and tends more powerfully than any course hitherto known to prevent the formation and deposit of Tubercles.

That Alcoholic drinks act to keep up the vital powers of the system, has been already sufficiently explained; and does not require further elucidation in this place. Indeed it is evident from what has been shown, that *no other internal remedy should be used in cases of consumptive disease, except alcohol in some of its forms*, as there is no other agent the internal use of which tends to check the *too rapid waste of tissue by Oxygen*, at the same time that it does not *tax and reduce*, but *preserves and increases the vital forces*. Although this conclusion applies with the greatest force to Consumption, yet it will readily be seen that to a very great extent the same facts and reasoning are applicable to all chronic diseases of the Lungs and Throat.

For the reasons that have now been stated, (and they are believed to be ample and conclusive) I have ever made the use of Alcoholic stimulants in some form one of the leading and most prominent features of my practice, in the treatment of pulmonary and laryngeal diseases. Besides the internal use of these potent agents, and the inhalation of Alcoholic vapors, I recommend to most patients the sponging of the entire surface, once or oftener daily with *dilute Alcohol*, and in many cases a species of jacket wet in the same liquid, to be worn about the chest. By all these applications, I secure not only the general effect of keeping the *blood in a venous condition*, but also valuable specific effect from each, which have the best influence on the disease.

The quantity of Alcoholic stimulants prescribed can not of course be here given, except in the way of an average. It varies of course, with the nature of the disease present, with the general condition of the system, the temperament and habits with the age of the patient, and the nature of the stimulus employed. No other disease tolerates, and in fact requires, so large a share of Alcoholic stimulus as tubercular consumption, in any stage—either in that of predisposition as a *preventive*, or in still larger quantities after deposit, as a *curative*.—

And, I will agree to take a case of marked *consumptive tendencies*, at the age of twelve years, and by a thorough course of physical training, in connection with the daily and temperate use of Alcoholic drinks, so to eradicate the consumptive habit, that at the age of twenty-five years, *not a vestige* of the tubercular predisposition shall remain, and the person shall be a *promising candidate for long life and health*.

Of one or more forms of Alcoholic liquors I recommend the patient to drink, and at stated hours, generally at times of eating.

In following out this method of treatment, in connection with the inhalation into the lungs of appropriate remedies, which are in all cases dissolved into *pure deoxidized Alcohol*, I am happy in being able to state that I have met with the most decided and satisfactory results. cases in which all the signs of the softening stage of tubercles were present, have shown under this treatment, a complete relief of the urgent symptoms, and in many instances, in fact, an arrest of the disease. Where, in consumption, the strength has been feeble, the appetite gone, the countenance wan and thin, and the flesh rapidly wasting away, a return of vigor and strength has been secured, the appetite has become good, the natural sprightliness and animation have returned, and the gain of flesh has again given plumpness to the limbs, and solidity to the muscles, and restored in fact the *tout ensemble* of health.

In cases where the destruction of the lungs has been to extensive, or the prostration of the vital forces too serious, so that recovery is impossible, the symptoms of the disease are greatly relieved, life is prolonged, pain and discomfort are almost wholly removed, and the patient passes down to the grave with a degree of relief and composure that is gratifying not less to himself than to his friends.

Cases of Bronchitis, Sore Throat, and Catarrh where they do not accompany a tubercular deposit in the lungs, are readily and almost invariably cured. In these diseases, it is very seldom, indeed, that I find myself obliged to rest satisfied with palliation; my object is to *cure* and the exceptional cases in which a cure does not result, are extremely rare. In Asthma, although a radical cure is but seldom secured by any treatment, yet the inhalation of the proper Medicated vapors, in connection with the *prudent* internal use of certain Alcoholic liquors, almost always affords prompt and decided relief.

LETTER VIII.

WHY THE ADMINISTRATION OF DRUGS INTO THE STOMACH HAS PROVED INEFFECTUAL EITHER IN PREVENTING OR CURING CONSUMPTION.

In previous communications I have examined the chemical nature of Alcohol, the particular state or condition of the blood which favors a deposit of Tubercles, and the result of the in-

ternal use of Alcohol in consumption and other chronic diseases of the Lungs and Throat. I have shown that the true meaning of the words "predisposition to Consumption," is, weakness of the *vital forces*, a state in which the chemical or destructive force of Oxygen gets the upper hand of the life-power, and consumes to too great an extent the Carbon of the blood, leaving that fluid in a highly arterial condition and filled with the remains of the nutritive materials in a partially decomposed state which are then deposited into the lungs, and sometimes elsewhere, forming Tubercles. I have shown that Alcohol is the most available form of carbonaceous material to satisfy the excessive demands of Oxygen; since it is safe, contains Carbon in a concentrated form, is highly volatile, is absorbed without change, and burns readily in the system, thus shielding the materials of blood and tissue from too rapid decay.

Here, then I claim to have found a *remedy* in harmony with true medical philosophy and sound common sense. For good or for evil, the agent is universally admitted to be potent.— Yet there is a clear connection between the pathology of the disease, and the chemical and physiological action of the remedy. Here is plainly the application of *means* to secure the desired *end*. Here is tangible curative power and efficacy.

Alcohol, or the elements of Alcohol, are seen to furnish the materials demanded; and these can be had in so perfect a form from no other source. If any more effectual or less objectional agent could be found, it should be used by all means; but so long as absolutely no other *has* been discovered, we have, of course, no choice but to use the *best and the only means known*, and properly used, we shall find this to be for all chronic and wasting diseases, a *universal medicine*. And will community hold that physician guiltless, who, knowing of a remedy for disease, will not employ it because it is sometimes abused, or because many persons entertain prejudices against its use under any circumstances?

A few, but very few, can be found in the entire medical profession, who freely prescribe alcoholic beverages as medicinal agents. Indifference, preconceived ideas, and the fear of public opinion, rob the people, but worst of all the invalid, of the benefits of this potent curative. Of the physicians who do prescribe alcoholic drinks, few have any correct conception of the relations of alcohol to nutrition or animal heat, to chemical or physiological science, to health or disease. Many prescribe Brandy or Port Wine on the same principles as elderly ladies recommend "thoroughwort" or "penny-royal tea," because they *have known* cases where these "*yarbs*" performed wonders. To know even this much of alcoholic stimulants, is well; but to know *how and why* they produce their beneficial effects, is vastly better; for it opens to the physician a new and potent

agency of cure, and to the patient a fresh source of hope and health.

Fat, the only substitute that can be proposed for Alcohol, is very difficult of digestion, slow to be absorbed, and every way a tax upon the powers of life. For the consumptive, no article could be worse. It generates acidity in the stomach, grossness and impurity in the blood. Alcoholic drinks on the other hand are readily absorbed; and they require no expenditure of the vital forces to digest or assimilate them.—They strengthen instead of debilitating the system. They give the consumer strength for weakness, health in place of disease.

But what are the effects of drugs? What, I ask, would an intelligent being naturally suppose, who had never taken them or seen them administered? What would such an one expect from the administration of a batch of foreign ingredients into a man's stomach,—antimony, mercury, iodine, lead, copper, gamboge, squilla, castor and croton oils, opium, asafetida, and an endless list of such pernicious stuff,—to mix with the food, enter the blood, and percolate through every fibre of the living tissues? Can it be that the human stomach was made to be a receptacle of such unnatural, harsh, and poisonous materials? The very idea is preposterous; and nothing but a gradual schooling of the whole race into this monstrous quackery, through the long continued struggle of physicians after *some new and strange* medicant, could ever have led us to lose sight of the self evident absurdity of such a proceeding.

The stomach was made for *food*; blood is formed only of *food*; nerve, muscle, and bone come only from *food*. Nature teaches the child and the savage to turn with abhorrence from all foreign, poisonous substances. Give any of the so called medicines to a person in *health*; and then witness the result. The most skillful physician in existence cannot so modify, compound, or change their nature, that they will not immediately produce disturbance and symptoms of disease. Try this again and again on persons in good health, and the result will invariably be the same.

No truth is clearer than this, that drugs are not compatible with health, but inevitably tend to generate disease. How could it be otherwise?

When intelligent raisers of stock feed their healthy animals on lead, antimony, copper, tobacco, rhubarb, and opium, and do this *because* they find the latter to thrive, and fatten, and live long, and in perfect health on such substance, then, but not till then, many human beings find some shadow of excuse for putting the same farago of poisons into their own stomachs.

But how, in reason's name, allow me to ask, can things which produce disease in a well person, and which, when kept up, must bring the stoutest frame to a premature grave,—how can such things bring health, strength, and long

life to the feeble and suffering invalid? It is impossible. That patients dosometimes recover under the use of drugs, is only a proof of the ability of the vital forces to overcome poisons as well as disease. And certainly, no fact is more firmly established, than that the internal use of drugs and medicines, never *has* accomplished, and never *can* accomplish, the cure of that most fearful of diseases, *Consumption*. No drug in existence has the power which Alcohol possesses, offering itself at once and in any quantity to Oxygen, and being burned up in place of the living substance, thus protecting the system against the encroachment of the destructive agent, and against the formation and deposit of tubercles. No drugs can improve and raise the vital powers; for they necessarily *interfere with* the operations of life, *derange* the action of the organs, and fills the blood with foreign and noxious materials; and thus they tend directly, in every possible manner, to favor the production of Consumptive diseases.

Drugs are almost universally given to purify or cleanse the blood. But how can drugs that are *foreign* and really *impurifies themselves*, when anywhere within the system, give purity, vigor, or perfection to the blood? How can perfect fluids, and solids in a human body come by mixing up with the food, the most unlike, unnatural, and hostile ingredients! As well say that alloying with copper purifies gold. A poet has sung of "gilding refined gold," and "painting the sunbeam;" but to gild the gold with *dross*, or to paint the sunbeam with *saffron*, surpasses our conception, as well as ability. We believe such "miracles" are the exclusive privileges of the druggists and druggist!

A child even can see the utter folly of filling the human stomach constantly with drugs. It is a subject of regret that the child does see the folly of such a course far more clearly than the grown person, who has been taught when young and by the *rattan*, if need be, to swallow poisons as the road to health! Before we reach advanced age, our instincts have become perverted. Otherwise, how can we account for the *fact*, that besides taking medicines enough from our regular physicians to support tens of thousands of them in comfort and wealth, our *national stomach* is made to receive every year not less than *five thousand bushels* of "patent pills," and *eight hundred hogsheads* of Expectorants, Alteratives, Deobstruents, and other slops, which leave the luckless consumers in worse instead of better health, and are only useful in building up for their concocters, the most magnificent palaces on Broadway and Fifth Avenue.

And, what are these wonderful panaceas composed of? Some of my readers may smile out of the wrong side of the mouth at learning that nine-tenths of all the boasted "pills" of the day are simply composed of *aloes, soap and rhubarb*; that the infallible expectorants are nothing but mixtures of *ipecac, antimony, molasses, and bad whisky*; and the famous altera-

tives, compounds of the same delectable liquids with salts of potash, and corrosive sublimate, and perhaps a dash of yellow dock or Sarsaparilla. Is it a wonder that as a people we are thin and pale! We are feeders on pork and pastry, "spare diet," and above all "patent pills." Is it a wonder that our men and women fall before Consumption, like sheep in an infected flock? We too often take cracked corn and water to build up the vital forces, and improve the blood and flesh, not forgetting to sweeten our fluids with the oozy concoctions known by the inviting names of "Pectoral" and "Balsam." Is it a wonder that our physical stamina as a nation is failing every year? It is because we are timorous about living freely up to the power that Nature has given us, while we debilitate ourselves with patent curatives by the peck, and patent alteratives by the barrel. If it be true, as foreigners declare, that we are a degenerating people, it is no less true, as the fact shows that we are a drug-swilling people. We are altered, they say, from the sturdy sires and portly dames of the Revolution; and since we have taken alteratives enough, in all conscience, why should we not be altered by them?

LETTER IX.

In my last communication I called the attention of the reader to the *irrationality* of any attempt to purify the blood, to improve the vital powers, or in fact, to *cure, or aid* in curing tubercular consumption in any stage, by the use of drugs; and this I followed with some information, relative to the composition of "Patent Medicines," and their effects on the health of the user, which I believed to be of the highest importance to the community.

But how much better, allow me to ask, are the prescriptions of many of our "regular" physicians? Calomel, blue mass, and castor oil are made to serve in their practice almost every variety of purpose; while I might almost say that opium, cod liver oil and ipecac, complete their Materia Medica. If "the Doctor" is a man of an inquiring turn, his saddle-bags may groan under the variety of his "simples" and "mixtures," but his patients will be sure to do the same; and by the time the bottles are empty, it is perfectly natural the charnal house should be full!

To enable the reader to judge of the merits of the prevailing practices of the day, in relation to tubercular Consumption, I will give in this connection a few samples of the treatment adopted by physicians of different systems, in this disease, and also by the advocates of no particular system.

As a brilliant example of the treatment of Consumption by the regular faculty, take the following incident.

A certain medical "shyster" living at one of our great hotels, who had doubtless graduated "with all the honors," and whose pompous dignity served in part to balance a rather conspicuous lack of brains, was safely delivered not many weeks since of the following prescription for a consumptive invalid, who applied to him for advice, namely:

"R. Acidi Nitrici, z j.
Tinct. Hellebori Albi, z iij.
Aque Fontane, Oss.

Mix. Dose, a teaspoonful every four hours."

This without a word of advice respecting diet, air, exercise or habits, comprised the whole of a prescription made, and delivered in the most impressive manner to a patient whom subsequent examination proved to be in the last stage of consumption. Now, translated into plain English the above prescription signifies as follows:

"Take of Nitric Acid, 1 drachm,

" " Tincture of White Hellebore, 3 oz.,
" " Spring Water, ½ pint; &c."

The nitric acid, which might prove of some service if inhaled, so as to act directly upon the parts affected, could be of no earthly utility when taken into the stomach. Hellebore is at the best a most drastic purgative; and as to water, its wonderful properties have been too long been known to wash-erwomen and slop-liquor manufacturers, to require mention here. I would gladly be relieved from the task of noticing such medical absurdities, did I not know that this is but a fair specimen of prescriptions made every day by medical practitioners—the physician feeling that he must prescribe something although at a loss to know what, and being determined to save appearances, if he cannot save his patient.

As another remarkable example of orthodox medical practice, I may mention the case of a lady who came to consult me, having a seton in each side for the cure of Consumption:

She was at the time scarcely able to walk. How many times the cure of tubercular disease has been attempted by producing antimonial sores over a large part of the chest—a practice the most exhausting, excruciatingly painful and offensive that can be imagined, and certainly the most ineffectual and worthless. And yet those who publicly sanction and commonly practice these irrational and monstrous quackeries upon their patient, are loud and untiring in their charges of empiricism and professional dishonor against all who venture to adopt and practice any method of treatment different from their own, no matter how much more scientific, rational or successful it may be.

The Homeopathic practitioners, I am willing to admit, are entirely free from the charge of trifling with the lives of their patients through the use of heroic remedies, calculated to reduce the vital forces, and co-operate with the causes of disease. But when we come to the work of curing or preventing Consumption, we find their patients inhaling or smelling from a sponge wet with the decilith part of a grain of Phosphorus or burnt oyster shells! I do not wonder that the Homeopathic practitioner fear tea, coffee, beef-steak, and even the odors of flowers, as dangerous poisons, when he can discover a curative for the most terrible of diseases in a remedy so infinitely small, that we may, without the least danger of unfairness, that for any practical purposes it has no existence whatever.

Hydropathy is certainly very valuable in some diseases; but it requires very little medical knowledge or common sense to decide that it must be wholly inapplicable to Consumption, a disease that, above all others, requires warmth, food stimulus, and invigoration and support of the vital powers in every possible manner. The effect of frequent external applications of water must be to tax the vitality of the system, to rob it of its warmth, and thus to hurry on the destructive changes and a

fatal result; and this is so well known to the best of Hydropathic practitioners, that they candidly advise the patient not to try *water cure* if his difficulty be of a tuberculous character. When ice sets the North Pole on fire, when snail-power takes the place of locomotives, and starvation produces a race of physical giants, then, but not till then, may we expect "Simon Pure" Hydropathy to cure a disease which *begins in debility, progresses by the decay of vital power, and ends only when this is totally extinguished.*

But besides those who practice some one of the regular *pathies* of the day, this city contains certain independent practitioners who desire few words in this connection. One of these, who is known wherever weak *pectoral muscles* and a *falling abdomen* afflict the human race, is famous for having harnessed up in his ridiculous accoutrements some thousands of persons; and for having sent forth from his office many an aspiring youth and venerable senior, armed with a *shoulder-brace* upon his back, a *supporter* to his bowels, a *plated whistle* in his mouth, and his stomach charged like a soda fountain with "Antibilious Mixtures," "Heart Corrector" and "Uterine Catholicons!" And yet this shrewd "Doctor" is out of jail, and may actually be seen at large in our streets. The fact that a man of such ridiculous pretensions has any patients at all, leads one to suspect there may be those who are unfortunate enough to carry their lungs in the abdominal region, perhaps their brains also; and for such I am sure the "Supporter Doctor and his imitators must be just 'the men, and I cordially commend them to their care."

I might name another gentleman who threatened, not long since to make a great stir in the medical world by setting all the consumptive invalids in the country to inhaling certain nauseous mixtures along with the vapor of *hot water*. However, I am informed by those who have been "there to see," that the steam in the Great Coffee Pot is going down, and all danger of explosion has passed. I am free to say that I do not believe the plan of *Hot-Water Inhalation* can much longer go down with the community, and especially with the unrelieved sufferers who have resorted to this newly-imported and revived humbug for the cure of Consumption. It savors of villainy to attempt to palm off on the Medical Profession of this country the *cast-off practice* of Drs. Scudamore, Corrigan and Mudge, without a single *new* feature or real improvement, that claim that as a *new, genuine* and *effectual* cure for the most, intractable and fatal of diseases!

And what are the *recent cure-alls* for consumption? Ayer's Cherry Pectoral has been sold as such in every hamlet and at every cross-road in the whole country; and who can say that it has lessened the mortality of Consumption? But throwing aside all Quack Nostrums, of which this, the most pretending of all, is just as worthless as the rest, I shall speak of the *only two discoveries* of pretended cures for this disease, claimed to have been made by the regular faculty within the present century. These are Phosphate of Lime and Cod Liver Oil.

In regard to *Phosphate of Lime*, I need go into no details. This great *medical discovery* was destined to die in its infancy. Its own advocates have dropped it within a few years of its first recommendation. Those who have faith in it, may still swallow the pulverized bones of horses and dogs, without much injury or inconvenience.

Cod Liver Oil is still swallowed by many, although it has been proved again and again that

there are not cod enough taken in all the fisheries of the world to supply the tenth part of the unctuous and slimy compounds exposed for sale in our drug stores! The death-blow was given to this greasy and offensive humbug when it was shown that Neat's Foot Oil was equally good for consumption, and then that fat beef and butter were just as good as Neat's Foot Oil—a statement which I am not disposed to question—and when the conclusion was drawn that since everybody eats fat meat and butter, *which are as good as Cod Liver Oil, therefore, nobody can die of consumption!* And yet people see that their friends *do* die just the same; and the whole *fat and grease* theory goes for nothing. What shall we say, then, of druggists in this city, claiming to be respectable, who advertise that Cod Liver Oil *does* cure consumption, and couple with this the reasonable hint that "everybody buys and uses" their own peculiar preparation! The truth is, that sensible physicians are abandoning this nauseous drug; and that not one bottle is now swallowed to fifty that were taken a few years ago.

No remarkable powers of mind are required to understand why the modes of treatment and so-called remedies which I have now described, have been proved in practice ineffectual and worthless. That they should cure disease or aid in its cure, is *utterly absurd and impossible*. If the reader is not already convinced, let him again examine the so-styled remedies which have at different times been made to hold out a delusive hope to the invalid struggling in the grasp of the monster—consumption. If this is not sufficient, *let him try the remedies proposed, beginning with I care not which, and, observe if it lasts, going thro' the list. Let him stake his life on their virtues, and the result.* For experience is, after all, the great test; and the community *know* that none of these boasted systems or medicines do cure tubercular consumption.

LETTER X.

EVIDENCE OF FACTS IN RELATION TO THE EFFECTS OF ALCOHOL IN PERVERTING CONSUMPTION.

(Continued.)

Having now presented at considerable length the proofs of the chemical fitness of Alcohol as a preventive and curative of Consumption, and of its positive efficacy as shown by experience in that disease, I propose to present the evidence of known and recorded facts, in relation to the same points. The reader will discover in the course of this communication that I am not alone in entertaining these views; but that I am sustained by the opinions of many and intelligent practitioners of medicine. Yet, none of those who have preceded me have carried their convictions into practice *so fully* as I have done; and in this important particular, therefore, my practice is seen to be new and original. Other medical men have dabbled with Alcoholic drinks as palliatives; I have found myself warranted in laying hold of them as *radical curatives* of disease; and have used them with such freedom as the different cases have required, and with the most beneficial results to which I shall again allude before leaving this subject.

I have already mentioned the fact that those who are commonly called *drinkers* very seldom die of Consumption. That this is a fact, I need only call upon any physician who has had an extensive practice, and long experience, to testify.—

Such men will often tell you that they *never knew* of death from Consumption occurring to a confirmed inebriate. Let any observing person look about him and count up the names of all his acquaintances who have freely indulged in wines, or other spirituous liquors, and he will arrive at the same result. But whom shall we, any of us, recall as having fallen a victim to this terrible disease?—Females, from the age of *eighteen* to that of *thirty*, first strike the memory. They form the most numerous class of victims to Consumption. But, it is seldom the case anywhere, that females partake freely of Alcoholic stimulus, even in its mildest form, and in the country we may say they *never* do.

The next most numerous class includes mild and inoffensive, perhaps interesting or talented young men, who very seldom use alcoholic beverages. Then come middle-aged, married men and women, prudent, plodding, care-worn, and too often, it must added, sufferers from legalized excesses in the marriage relations; and these are seldom even free drinkers of spirituous liquors, the great majority of them not drinking at all.

These are facts. They may be observed in any community; and in regard to them I fearlessly challenge contradiction. Now, what do these facts amount to when summed up; First, they show that the great burden of the mortality of Consumption falls upon those who never, or as good as never, taste any form of alcoholic drinks. And secondly, without saying that habits of inebriety are necessary to the prevention of Consumption, they *do show* that those who *habitually indulge* in the use of spirituous drinks are almost totally exempt from this disease.

Dr. J. G. Atkinson, physician to the Wakefield Dispensary, England, who has had the opportunity of making extensive observations on the subject of Tubercular Consumption, and who attended there every patient afflicted with the disease, during five years, and witnessed the *post mortem* of all who died, has given us his testimony on this subject. After remarking that the victims of this disease are chiefly taken from among those classes of individuals "whose general tone of system is lowered," cases in which the changes produced by the destructive action of Oxygen go on too rapidly, he adds, "A remarkable fact exists, strange as it may appear, that in consumptive families the *most dissipated and irregular in their habits*, and those who have habitually exposed themselves to many of the causes liable to engender this diathesis, [diseased condition,] *have yet frequently enjoyed longevity*; whereas, in the same families, the most virtuous, and those who have guarded their lives with the greatest care and prudence, have fallen early victims."

I give place to this fact, simply as a fact, and not to sanction or recommend habits of dissipation.—It is the *due*, and not the *undue* employment of alcoholic stimulus for which I contend, as preventive of Consumption. All the benefits to be derived from the use of alcoholic drinks may be secured without going to an injurious excess; while on the other hand, immoderate drinking produces the most serious diseases of the *liver and nervous system*, although it *shields the lungs*.

Dr. Atkinson states that in prisons, where alcoholic drinks are, of course, rigidly excluded, "*four-fifths*" of all the deaths occur from tubercular disease; while among publicans, (hotel keepers,) butchers, seamen, brewers, and others, who take alcoholic stimulus regularly, or we may say irregularly, the deaths from Consumption are

much less frequent than in the community at large. The want of pure air and of exercise under which the inmates of prisons suffer, will, of course, have some effect in producing the result stated. And yet this is not the whole cause of the prevalence of Consumption among prisoners, as shown by the fact that *publicans* who are apt to lead an indolent life within doors, do not die of this disease in near so great a ratio as those who pursue other avocations. Thus, in 2,233 deaths recorded during ten years in the town of Wakefield, in England, there were,

Deaths of Publicans, in all.....	25
from Consumption.....	2
Deaths of other classes over 15 years of age.....	1665
from Consumption.....	541

thus showing a mortality among the adults of other occupations from Consumption of slightly less than one in *three*; while among publicans the proportion was but one in *twelve and a half*. It is a well known fact, also, that in wine growing countries, where wines are *plentiful and pure*, and where the entire population make free use of them, *Consumption is a disease almost unknown*.

But it will be said that dissipated young men do often die of consumption; and if this statement be confined to the case of our cities, I am prepared to admit that it is true. But not a moment's reflection is necessary to show us that these unfortunate young men are subject to a host of influences, the tendency of all of which is to destroy *vital power*, to derange the action of all the organs, to fill the blood with disease, and to prepare them in every way to fall an easy prey to the destroyer. Excesses in diet, and that of the worst kinds of food; excessive indulgence of animal passion at an age when the body is by no means prepared to endure the tax, and perhaps in the more deadly form of "solitary vice;" the consequences of syphilitic diseases; late hours in theatres, saloons, and various other places of resort, where the most poisonous air is inhaled; and the immediate use of tobacco, are some of the vicious and destructive practices which conspire to undermine the health of the "fast young men" of cities, and to sow their lungs with the seeds of consumption. But the man of twenty-five, thirty, or upwards, although he may be of irregular habits, is seldom addicted to all these erroneous practices in their worst forms, or so constantly under their influence as the more ardent and less experienced youth; and hence in the older person we see the protective power of the free use of alcoholic stimulans again come into play, and deaths from consumption are among this class, as we have already seen, extremely rare.

LETTER XI.

EVIDENCE OF FACTS IN RELATION TO THE EFFECTS OF ALCOHOL IN PREVENTING CONSUMPTION.

(Continued.)

LIEBIG says, "Of all respiratory matters Alcohol acts most rapidly," and I have shown in previous letters of this course that a perfect respiratory food, which by ready union with oxygen shall shield the system from too rapid change and decay, is what is most of all required in Consumption. Again, he says, "Alcohol stands high as a respiratory material. Its use enables us to dispense with starch and sugar in our food." I have already quoted the memorable expression of the German chemist MOLZSCHOTT, that "*Alcohol is a*

bank for savings,"—a bank in which they above all others should have deposits who are in danger of a *literal consumption* of their blood and tissues.

Those who look upon Alcoholic drinks as only evil and destructive in their effects, tell us that Alcohol is a "slow poison," and that under its action the powers of the system inevitably wear out, and life is shortened. Yet the history of LOUIS CORMARS, an Italian nobleman, is well known, and the fact that, after having led a dissipated life until the age of about forty years, and thereby ruined his health, and having resolved to pursue a more regular and temperate course, in carrying out this he drank daily *fourteen ounces*, or nearly a pint of wine, and lived in health and vigor, both of mind and body, for *fifty eight years* afterward, dying at the ripe age of one hundred years! The two surgeons, ESPAÑO and POLITIMAN, were drunk every night for the last twenty-five years of their lives; and numerous cases are on record of persons who have been constant drinkers, and yet have reached the age of one hundred years or upward.

Other striking examples may be seen in two of the greatest statesmen of our own country, DANIEL WEBSTER and HENRY CLAY, whose arduous labors were sustained during a long life of activity, either by, or at least in harmony with, the constant and free use of alcoholic drinks. It is a well known fact that almost all our public men are free spirit-drinkers, and equally well known that very few of them, and a much smaller proportion than among the community at large, fall victims to Consumption. Alcohol proves itself the antidote to the cares of State and the perplexities of political life; and but for its use, many of our statesmen would hardly attain the ripe old age to which we find them actually living.

In respect to the protective influence of Alcoholic drinks against Consumption, testimony from eminent sources is abundant. Says Dr. COTTON, of England, "Wine or beer in moderate quantity should be included in the diet list, [where a predisposition to Consumption exists,] and I have seen conscientious scruples upon this matter overcome on many occasions with marked advantage." ANGELL makes the following statement: "Facts are not wanting which tend to establish that the tuberculous constitution is benefited by the moderate use of alcoholic fluids." ROKITSKY attaches the greatest importance to maintaining the blood in a *venous condition*, as a preventive of the formation of tubercles in the lungs, and it is well known both from theory and experience, that no other substance preserves the blood so perfectly in a venous state, as do alcoholic drinks when daily used. SIMON, one of the most celebrated pathologists of the age, agrees entirely in these conclusions. LOMBARD has calculated that consumption is only *half* as prevalent among persons in easy circumstances, who are good livers and often *free drinkers*, as it is among the great bulk of the population.

No stronger testimony, however, has been given in respect to the value of alcoholic drinks as a preventive of consumption, than that of the late lamented Professor SWERT, of the New York University, one of the most distinguished of American practitioners and medical writers. Altho' earlier in life he entertained very different opinions on this subject, yet we find in his work on "Diseases of the Chest," p. 238, the following candid statement: "Two medical gentlemen," says he, "attached to the *public dead house* in this city, (New York,) in which bodies are deposited

that are found in the streets, or without friends, discovered in about seventy *post mortem* examinations of those who have died of the most confirmed and aggravated intemperance, *not a single case of tuberculous lungs!* A most surprising result, when you remember that this unfortunate class have, probably, long suffered from *poverty, bad nourishment*, and exposure to the weather; influences which are regarded as predisposing to the tuberculous deposit"—and of course to pulmonary consumption.

This is very strong testimony to the prophylactic influence of alcohol against consumption; and it comes from a high source. Prof. SWERT also recommends alcoholic drinks in the treatment of the later stages of the disease, and the use of diluted alcohol for bathing the chest. Prof. MUSSEY, of Cincinnati, Dr. CHARLES M. JACKSON, of Boston, Prof. METCALF, of the New York University, Prof. W. PARKER, of the New York College of Physicians and Surgeons, and Dr. EDWARD H. DIXON, Editor of the "Scalpel," are, with others that might be named, avowed advocates of the use of alcoholic drinks for the prevention and cure of consumption; and to these distinguished names, with those previously quoted, I may add that of Dr. MARSHALL HALL, of London.

Facts have already been stated showing the *protective power* of alcohol against tubercular consumption, and many others might be adduced did space permit. For instance, it is well known that the butchers in our wholesale markets, who carry on their business in the open air, are almost without exception *free spirit drinkers*. Now from inquiries which I have repeatedly made of butchers who have their stand in Washington Market, New York city, who constantly number not less than one hundred men, I learn the astonishing fact that *not one death by consumption has occurred among their number during the last forty years!* Some persons will be disposed to credit this fact to their free use of animal food, and others to their exposure and living in the open air. Yet the continual dampness of the atmosphere by which they are surrounded, and the prolonged cold without vigorous exercise to which they are exposed in winter, are universally admitted to be influences which strongly predispose to consumption; while, on the other hand, every one knows that many who freely use animal food do not die of this disease, and the same is true of many farmers whose employment is wholly out of doors, and that under more favorable circumstances by far than in the case of the butchers who have been mentioned.

I have explained in previous letters how it is that alcohol acts to remove Tubercles, and to prevent their further formation and deposit, in cases where they already exist; and have thus shown that it is not only a *preventive* but also a *curative* of Consumption. Its administration, in connection with the inhalation of the proper medicated vapors into the lungs, and with the use of nature's remedies, *air, exercise and diet*, will cure the disease where it is curable, and greatly prolong life and mitigate suffering where a cure is not to be expected; in fact, it requires no great powers of discrimination to perceive that what will *prevent* tubercles must also assist in curing Consumption in its advanced stages.

I hope, however, that no fact or argument which I have adduced will be considered as favoring, or *designed to favor*, the use of alcoholic drinks by all persons indiscriminately. Those who are not predisposed to Consumption, if their occupations and habits are not of themselves destructive of health,

need have no fears of dying of this disease; and certainly such have no occasion to use *preventives*. It is only when Consumption has run in the blood of the family, or when occupation or habits favor the production of the disease, that precautionary measures are advisable. But whether tubercles already fill the lungs, or a predisposition exists, can only be decided by the educated and experienced physician; and the use of alcoholic drinks therefore, should never be commenced or continued except by the authority of such a one.

My observations have taught me that habitual inebriety is by no means necessary, in order to secure all the benefits of the use of alcohol, and perfectly protect the system against Consumption.—Nor do the facts which I have stated go to favor the abandonment by any person of principles, of *temperance*, which, when properly understood, signifies *moderation*, and inculcates the reasonable use of everything beneficial to the user. By those predisposed to Consumption, alcoholic drinks should be taken as a part of the *daily food*, only as food, and in such quantities and at such intervals as shall, without intoxicating, keep the blood during walking hours *constantly charged with a portion of this agent, and the system constantly but imperceptibly under its influence*. Thus used, no agent is better calculated to prevent or check the inroads of Consumption, or to delay or forbid its fatal termination.

In recommending to consumptive invalids the use of alcoholic beverages, I would advise them in all cases to procure pure and genuine articles of the kind used, if possible. The evil effects of liquors in general use, are in a great degree due to the *foreign and noxious ingredients* with which they are adulterated. Where pure liquors are to be generally had, the injurious consequences which elsewhere follow from free drinking are seldom observed, and even intoxication is almost unknown, as is the case in the wine productive regions in the south of Europe. Those who have occasion to employ alcoholic drinks should be particular to inform themselves what kinds are most likely to be had pure, and where they can be obtained; and in parts of our country where pure, *native wines* are to be procured, these may for certain condi-

tions of consumptive disease, be safely recommended.

My experience with the use of alcoholic drinks has been most decided and satisfactory. Although I have now prescribed them in more than three thousand cases, *I have never yet seen a patient of mine injured by their use; but I have always witnessed from them beneficial results in a greater or less degree*. In all cases I consider the preservation of life to have been mainly due to their favorable influence on the disease. In Asthma, Bronchitis, Catarrh, but more particularly in Consumption, their beneficial effects are unquestionable.

It was the views of the nature and production of tubercles, and of the way in which they become the foundation of Consumption, which I have now presented to the reader, that led me at first to depend on *alcoholic drinks and the cold medicated vapors* as the great and only reliable remedies for this disease; and when I contrast the success that has attended this practise, with the *sad and disheartening failure of all others* which the medical world has yet produced—a fact painfully well known to the profession and the public—I am free to say that my most sanguine hopes have been realized, and my labor amply rewarded. Employing the above agents, and rejecting *wholly* the use of medicines by the stomach, whose only effects are to disturb the organs, to weaken the vital forces, and to fill the blood with foreign and impure substances, and leaving the stomachs of my patients to the use for which nature intended them, namely: the reception and digestion of pure, nourishing, invigorating *food*, I have accomplished results in the cure of the diseases of the lungs and throat, which I challenge the advocates of any other system to equal.

With this letter I close for the present the consideration of the use of alcoholic drinks as a means of the protection and cure of the dreaded disease—Consumption. The arguments and facts which have been advanced I commend to the candid reader, in the hope they may tend to diffuse more correct opinions in regard to a matter of so much importance as this, which involves the health and lives of *one-sixth* of all the inhabitants of civilized communities.

☞ Intending to make more extended investigations upon the Prophylactic effects of Alcohol in Tuberculosis than is here presented, and being anxious to collect facts upon the subject from members of the Medical profession throughout the country, they will not only greatly oblige me, but add to the cause of Medical science, by forwarding such facts as may have come under their observation and professional experience.

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